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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,198	06/06/2001	Tom McGee	US 010136	9113
24737	7590	04/20/2005	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			LAYE, JADE O	
			ART UNIT	PAPER NUMBER
			2614	
DATE MAILED: 04/20/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/876,198	MCGEE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jade O. Laye	2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☒ Claim(s) 2-10 and 12-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/6/01 &amp; 10/9/02</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statements (IDS) submitted on 6/6/01 and 10/9/02 are in compliance with the provisions of 37 CFR 1.97. Accordingly, each has been considered by the examiner.
2. The references cited in the Search Report dated 7/16/2002 have been considered, but will not be listed on any patent resulting from this application because they were not provided on a separate list in compliance with 37 CFR 1.98(a)(1). In order to have the references printed on such resulting patent, a separate listing, preferably on a PTO/SB/08A and 08B form, must be filed within the set period for reply to this Office action.

### ***Specification***

2. The disclosure is objected to because of the following informalities:
  - a. The word “region” is misspelled on page 7 of the Specification.Appropriate correction is required.

### ***Claim Objections***

3. Claims 2-10 and 12-21 are objected to because of the following informalities:
  - a. The phrase “...said program...” in claims 2-10 and 12-20 lacks antecedent basis.  
The phrase should refer back to “said at least one program.”

- b. The phrase "...said value representing characteristics data..." in claims 5-10 and 15-20 lacks antecedent basis. It is not clear whether the phrase refers back to the first or second value representing characteristic data recited in claim 1.
  - c. The phrase "...the audio portion..." in claim 8 lacks antecedent basis.
  - d. The phrase "...said second value program..." in claim 21 lacks antecedent basis.
- Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Jackson. (US Pat. No. 5,963,264).

As to claim 1, Jackson discloses an electronic programming guide system (EPG) capable of controlling a recording device. More specifically, the system is capable of obtaining data relating to the start and stop times of the EPG selections, storing said start and stop times in a nonvolatile memory, and then comparing said start and stop times (i.e., values) with the incoming signal in order to determine whether said incoming signal is the requested program. Thereby, the EPG system is capable of recording a program based upon its actual air time, not simply the time listed on the EPG. (Abstract, Col. 1, Ln. 5-8 ; Col. 2, Ln. 21-26 & 57-67 ; Col.

4, Ln. 26-35 ; Col. 5, Ln. 50-67 thru col. 6, Ln. 1-20). Accordingly, Jackson anticipates each and every limitation of claim 1.

As to claim 2, Jackson further teaches the program is carried by a video signal. (Abstract). Accordingly, Jackson anticipates each and every limitation of claim 2.

As to claim 3, Jackson further teaches the system includes a display device. (Fig. 1, Item #36). Accordingly, Jackson anticipates each and every limitation of claim 3.

As to claim 4, Jackson further teaches the system includes a recording device. (Abstract). Accordingly, Jackson anticipates each and every limitation of claim 4.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Dimitrova et al. (US Pat. No. 6,100,941).

At the outset, the Examiner would like to note the Dimitrova reference is not precluded under 35 U.S.C. 103(c). This statutory provision provides that: "Subject matter developed by another person, which qualifies as prior art only under one or more subsections (e), (f), or (g) of section 102 of this title, shall not preclude patentability...". 35 U.S.C. 103(c). Applying the plain language of 103(c), Dimitrova is acceptable as a reference because (1) it was developed by another inventive entity (i.e., another person) and (2) it qualifies as prior art under 102(a).

Claim 5 recites the method of claim 1, wherein said value representing characteristics data gathered from said program is a signature generated by using a combination of features from a frame of said program. As discussed above, Jackson discloses all limitations of claim 1, but fails to specifically recite the limitations of claim 5. However, within the same field of endeavor, Dimitrova et al disclose a similar system and method capable of locating the start/stop times of a commercial disposed within a broadcast stream. More specifically, this can be accomplished through an analysis of a signature generated by using a combination of features from a frame of the broadcast signal. (Col. 1, Ln. 7-20 ; Col. 2, Ln. 10-64 ; Col. 14, Ln. 35-38 ;

Col. 17, Ln. 50-67 thru Col. 18, Ln. 1-45). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the systems of Jackson and Dimitrova in order to provide a system capable of detecting the start/stop times of a broadcast program via an analysis of various features of the program frames, thereby providing a more accurate program detection system.

Claim 6 recites the method of claim 1, wherein said value representing characteristic data gathered from said program is a color histogram generated from a frame of said program. As discussed above, Jackson teaches all limitations of claim 1, but fails to specifically disclose the limitations of claim 6. However, within the same field of endeavor, Dimitrova further teaches the analysis of a color histogram generated from a program frame, which is used to determine the start/stop time of a program (i.e., commercial) located within the stream. (Col. 18, Ln. 15-18). Accordingly, the combined systems of Jackson and Dimitrova contain all limitations of claim 6.

Claim 7 recites the method of claim 1, wherein said value representing characteristics data gathered from said program is generated from closed captioning data gathered from a frame of said program. As discussed above, Jackson contains all limitations of claim 7, but fails to specifically recite the limitations of claim 7. However, within the same field of endeavor, Dimitrova further teaches the system can determine start/stop times based upon an analysis of closed captioning data gathered from a program frame. (Col. 2, Ln. 10-64 ; Col. 18, Ln. 19-35). Accordingly, the combined systems of Jackson and Dimitrova contain all limitations of claim 7.

Claim 8 recites the method of claim 1, wherein said value representing characteristics data gathered from said program is generated from the audio portion from one or more frames of said program. As discussed above, Jackson discloses all limitations of claim 1, but fails to

specifically recite the limitation of claim 8. However, within the same field of endeavor, Dimitrova further teaches the system can process the audio portion of the signal in order to determine the start/stop time of the broadcast (i.e., commercial). (Col. 2, Ln. 10-64 & Col. 18, Ln. 19-35). Accordingly, the combined systems of Jackson and Dimitrova contain all limitations of claim 8.

Claim 9 recites the method of claim 1, wherein said value representing characteristics data gathered from said program is a signature generated for a block of discrete cosine values for a frame. As discussed above, Jackson discloses all limitations of claim 1, but fails to specifically recite the limitations of claim 9. However, within the same field of endeavor, Dimitrova further teaches the analysis of a signature derived from the application of a compression technique known as a Discrete Cosine Transfer ("DCT"). (Col. 4, Ln. 63-67 thru Col. 5, Ln. 1-18 & 66-67 thru Col. 6, Ln. 1-39 ; Col. 7, Ln. 58-67 thru Col. 8, Ln. 1-56) (Moreover, Applicant's Fig. 2 is nearly identical to Dimitrova's Fig. 7 --- Note: the DC and AC block signatures are extracted using the DCT). Accordingly, the combined systems of Jackson and Dimitrova contain all limitations of claim 9.

Claim 10 recites the method of claim 1, wherein said value representing characteristics data gathered from said program is obtain from low level features. As discussed above, Jackson contains all limitations of claim 1, but fails to specifically recite the limitations of claim 10. However, within the same field of endeavor, Dimitrova further teaches his system gathers characteristic data from a number of low level features such as frames, signals, color histograms, etc. (as cited in previous claim rejections). Accordingly, the combined systems of Jackson and Dimitrova contain all limitations of claim 10.



6. Claims 11-14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Takatori. (US Pat. No. #6,252,629).

Claim 11 recites limitations too numerous to list herein (please refer to claim sheet). All limitations of claim 11 are encompassed within the limitations of claim 1, except the limitation directed to "...obtaining a first value representing characteristic data of an ending of a program immediately proceeding said at least one program...". In so far as the limitations of claim 11 mirror those of claim 1, the same rejections under Jackson apply. But, Jackson fails to recite the additional limitation in claim 11. However, within the same field of endeavor, Takatori discloses a similar system in which the system analyzes the program preceding the requested program in order to determine when to begin recording. (Col. 1, Ln. 63-67 thur Col. 2, Ln. 1-5, 33-40, & 60-65). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the systems of Jackson and Takatori in order to provide a system which could update a recording function in accordance with an extension of the preceding program.

The limitations of claim 21 are encompassed by the limitations of claim 11. Thus, it is analyzed and rejected as previously discussed.

The rejections of claims 12-14 mirror the rejections of claims 2-4, respectively. Therefore, each is analyzed and rejected as previously discussed.

7. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Takatori as applied to claim 11 above, and further in view of Dimitrova.

The rejections of claims 15-20 mirror the rejections of claims 5-10, respectively. Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to further modify the combined systems of Jackson, Takatori, and Dimitrova in order to provide a system capable of detecting the start/stop times of a broadcast program via an analysis of various features of the program frames, thereby providing a more accurate program detection system. In addition, the further modification would provide a system which could update a recording function in accordance with an extension of the preceding program.

8. Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson in view of Kim. (US Pat. No. 5,526,130).

Claim 22 recites limitations to numerous to recite herein (please refer to claim sheet). The limitations of claim 22 are encompassed by the limitations of claim 1. However, applicant has added additional limitations directed to "...monitoring said video signal source at time proximal to said program start time..." and setting a logic output means to true or false in order to signal the system to stop or continue the comparison, respectively. Regarding the limitations encompassed under claim 1, the same rejections apply. But, Jackson fails to specifically disclose the additional limitations of claim 22. However, within the same field of endeavor, Kim discloses a similar system in which a broadcast stream is monitored at a time proximal to the program start time. (Col. 7, Ln. 3-11). Moreover, until a corresponding program is found, the system will continue to monitor and compare the stream. (Col. 9, Ln. 5-31). The system accomplishes this by outputting a "yes" (i.e., true) or "no" (i.e., false). (Fig. 8). Accordingly, it

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would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the systems of Jackson and Kim in order to provide a more efficient program recording system.

Claim 23 recites the method of claim 22, and further limitations too numerous to recite herein (please refer to claim sheet). As discussed above, the combined systems of Jackson and Kim contain all limitations of claim 22, but they fail to specifically recite the additional limitation of claim 23 directed to monitoring the signal at a time approximate to the program end time. However, claim 23 is an obvious variant of claim 22, which recites monitoring the signal at a time proximal to the start time. Accordingly, the combined systems of Jackson and Kim contain all limitations of claim 23.

Claim 24 recites the system of claim 22, wherein said processor is further operatively connected to a device for further processing said program, wherein a TRUE value for said logic output means causes said processor to turn on said device to the channel of said program. As discussed above, the combined systems of Jackson and Kim contain all limitations of claim 22, and Kim further teaches it is well known in the art for systems such as this to activate a VCR device when a corresponding program is detected (i.e., TRUE logic output). (Col. 1, Ln. 22-41). Furthermore, it is inherent that the VCR be tuned to the necessary channel in order to perform the recording. Therefore, the combined systems of Jackson and Kim contain all limitations of claim 24.

Claim 25 recites the system of claim 24, further comprising that a FALSE value said logic output means causes said processor to turn off said device for further processing. As discussed above, the combined systems of Jackson and Kim contain all limitations of claim 24,

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and Kim further teaches it is well known in the art for systems such as this to deactivate the recording apparatus. (Col. 1, Ln. 22-41). Therefore, the combined systems of Jackson and Kim contain all limitations of claim 25.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Kim (US Pat. No. 5,432,558) discloses a method of recording based upon detection of an encoded signal.
- b. Wang (US Pat. No. 6,289,163) discloses a frame capturing system and method.
- c. Yee et al (US Pat. No. 5,210,611) disclose an automatic tuner using a filtered seek.
- d. Young (US Pat. No. 4,977,455) discloses a system and method of recording.
- e. Kinghorn et al (US Pat. No. 4,908,707) discloses a method of recordation based upon the detection of an encoded signal.
- f. Alexander et al (US Pat. No. 6,177,931) disclose an EPG capable of recording broadcast programs.
- g. Park et al (US Pat. No. 5,608,534) disclose a method of recording.
- h. Nishigaki et al (US Pat. No. 5,900,912) disclose a method of recording.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jade O. Laye whose telephone number is (571) 272-7303. The examiner can normally be reached on Mon. 7:30am-4, Tues. 7:30-2, W-Fri. 7:30-4.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner's Initials YL  
April 14, 2005.

  
NGOC-YEN VU  
PRIMARY EXAMINER